

Oral History Program: Biographical Notes

Ivor Lennox Pinkerton (1915 - 2001)

Consulting Civil Engineer

- Birth & Family:** Ivor Pinkerton was born on the twelfth of October 1915 in Crookwell, New South Wales.
He married Mary (*When – surely not soon after birth!*) and had four children: John, Robin, Marianne and Margaret.
- Education:** Crookwell Primary School.
Goulburn High School.
Sydney High School.
University of Sydney.
- Qualifications:** BSc – University of Sydney, 1936.
BE Civil (Hons) – University of Sydney, 1938.
- Awards:** Member of the Order of Australia.
Commander of the Most Noble Order of the Crown of Thailand.
Institution Medal awarded by the Institution of Engineers (Aust), 1964.
Ricky Medal for Hydro-Electric Engineering awarded by the American Society of Civil Engineers, 1965.
- Memberships:** Fellow, American Society of Civil Engineers.
Fellow, Institution of Engineers, Australia.
Aesthetics Committee, Snowy Mountains Authority – Chairman.
Australian National Committee on Large Dams – Secretary, Technical Committee on Legislation, Vice-Chairman.
NSW Dams Safety Committee.
- Work History:** After graduating, Pinkerton entered the private sector, working on the structural design of multistorey buildings with the company Arc Pty Ltd, a consulting engineering firm in Sydney. During the last twelve months of this twenty one month period he was fully responsible for the engineering design office. From 1939 – 1940 (*spaces need closing up*) Pinkerton worked in Fiji as an engineer with the Suva Town Council. Returning to Australia in 1940, he found a position with the Commonwealth Department of Works, where he was involved with defence works, Darwin's main wharf and many Commonwealth buildings.
In 1947 Pinkerton became the Design Engineer for the Water Resources Commission of NSW. He was responsible for the design of Keepit Dam on the Namoi River, the design of Lawson Siphons for the main canal crossing of the Edwards River and the development of the procedure for the construction of the buttresses for the raising of the Burrinjuck Dam.

In 1949, seeing a chance for a lifetime career in the work that he enjoyed, he applied to join the newly-formed Snowy Mountains Authority. He was interviewed by Sir William Hudson and became the second engineer to be appointed. Beginning work at the Alexandria Office, he was responsible for the design of the Guthega project, the first part of the Snowy Scheme to be constructed. This involved finding the site for Guthega Dam, and helping to prepare the tender drawings. The United States Bureau of Reclamation was very helpful in the early days, assisting in design. Along with a number of other young engineers, Pinkerton was sent to Denver to work as a trainee with the Bureau and was appointed Liaison Engineer.

Returning from America in 1952, he was appointed Engineer for Dams in the Civil Engineering Design Division. He moved from Sydney to Cooma in early 1953, and was based there for the rest of his time with the project. Pinkerton said that one of the biggest advantages of living in Cooma was that, because the head office employees were not only working together but also living together, they got to know one another much better and this understanding came through in their work.

In 1955 Pinkerton succeeded Bert Ronalds as the Engineer-in-Charge of the Civil Engineering Design Division, with overall responsibility for the design of the Snowy Scheme. He said that this job was made much easier by the competent civil engineering staff working for him. He also noted that the recently arrived migrants settled down quickly and the staff worked together very well.

He worked hard to convince the Commissioners that the Snowy staff could do the design work for Tooma Dam in-house. The Commissioners agreed, giving them six months to complete the task.

Pinkerton was involved in the relocation of the Tumut 1 Underground Power Station. The problems encountered during the construction of this project led to modifications of the design of Tumut 2. Pinkerton and Eric Gibson wrote a paper on using photo elastic modelling to determine the behaviour of rock for the Tumut 2 Underground Power Station, for which they were awarded the Ricky Medal by the American Society of Civil Engineers.

All civil engineering design work was now done by the Snowy staff. For the Geehi Dam a new and much more cost effective type of design was introduced, namely rock fill. The final project for the Snowy program was Tumut 3. This project had another world first in its design in the design of the pipelines. Colin Kilmartin led the innovation of designing the pipes with no expansion joints.

A tunnel inspection committee, of which Pinkerton was a part, was established to determine the type of treatment for the unlined tunnels. They decided to put in concrete paving on the invert to facilitate access, which to Pinkerton's knowledge was a world first. All of the trans-mountain diversion tunnels, apart from the Murrumbidgee-Eucumbene tunnel, have these concrete floors. .

An aesthetics committee was established for the scheme, with Professor Dennis Winston and Donald Macleirean appointed as members and Pinkerton serving as Chairman. This committee had a great influence on the design of power stations and other Snowy works. The engineering services for the new townships of Jindabyne and Adaminaby were completed by Snowy engineers. Pinkerton was also involved in the decision to lay pipe aqueducts rather than open channels. The siphon intakes to pressure tunnels were also a world first.

He noted that at first, the people of the Snowy seemed hostile to the great influx of newcomers, and as a result the Snowy workers really created a society of their own. Overall however, the people of the area all got along well enough.

He said that his involvement in the Snowy scheme was probably one of the best things he had ever done, saying that it led Australia into a new era of engineering and also created a pride and bond between Snowy workers. As work on the Snowy neared completion, the group became involved in other projects such as the design of the Eastern Suburbs Railway including the prestressed concrete viaducts at Woolloomooloo and Rushcutters Bay.

When the Snowy Scheme drew to a close in 1972 Pinkerton was appointed Chief Engineer of Civil Design with the Snowy Mountains Engineering Corporation. He worked with SMEC for four years, during which time he made a number of overseas trips to work on projects.

Following his retirement in 1976, Pinkerton travelled in Australia and overseas as a consultant on large hydroelectric and irrigation projects. He continued this until three months before his death in May 2001, at the age of 85.

Prepared by Patricia Taaffe, July 2003, from an oral history interview with Ivor Pinkerton conducted by Matthew Higgins on 26.02.99.